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The Annual Meeting

The 42nd annual meeting of the Institute of British Foundrymen was, international gatherings excepted, the best attended we remember, taking into consideration, of course, the exclusion of lady guests. So great was the desire to hear Mr. Devereux deliver the 8th Edward Williams lecture that the Ball Room at the Waldorf Hotel was not quite large enough to hold the audience, and a handful were unable to gain admittance. This is to be expected, as the annual report discloses that the membership has grown to 3,368, an increase of about 1,000 since 1939. Yet people will not make long uncomfortable journeys to a centre where accommodation is difficult to get unless they are assured of an attractive programme. This they had in full measure, for there were 10 Papers available for discussion and important business to transact.

The war has obviously interfered with the conduct of technical institutes, and especially with appointment of the honorary officials. This, in the case of the Institute of British Foundrymen, has been complicated by the sad death of Dr. T. Swinden, its vice-president. Knowing they were on a good wicket, the members re-elected Mr. J. W. Gardom for a further year. Moreover, they honoured him by awarding him the E. J. Fox Medal. It has always been understood that the first full-scale conference after the war should be held in Birmingham, and Mr. D. H. Wood has held himself in readiness for this event for several years. The course is set clear for this event, as now Mr. Wood is president-elect. The new vice-president is Mr. P. H. Wilson, O.B.E., and his election is long overdue, as he has been for many years an outstanding personality in the industry.

Before the conference started, an interesting and and important private function was staged. The officers and past-presidents were the hosts at a luncheon at which the guests were the presidents of kindred societies. It was only a small function, but yet larger than those which 42 years ago brought the Institute itself into being, or 23 years ago international co-operation. Sir Harry Railing, president of the Institution of Electrical Engineers, who voiced the thanks of the guests, was more than generous in his appreciation of this gesture of goodwill.

By approving unanimously of the alterations of the rules to raise the subscriptions to a level which will take care of the costs for ensuring the continuity of the excellent services it renders to its members, a step forward of major importance has been made. On each occasion that this has been done, the Institute has grown both in membership and usefulness.

To our mind, the outstanding feature of the meeting was Mr. Devereux's lecture on the light alloy in war and its prospects in the future. Using statistics recently made available, he showed how this industry in utilising the most modern methods of production had furnished the aircraft industry with the highest grade of extremely complicated castings at an extremely low price. From this he developed his theses that from now on, the iron-foundry industry to compete on level terms with light aluminium castings under quantity-production conditions, must not exceed the price of 4d. per lb.

The awards of the British Foundry Medal to Mr. John Vickers and the Oliver Stubbs Medal to Mr. J. R. Roxburgh were well merited and received general approbation. They both very generously paid tribute to the teams which they "captained" as the source of their success. Without being invidious, we deem the Papers submitted by Jazwinski, Wells and Finch on "The Gating and Feeding of Steel Castings" and Rambush and Taylor on "A New Method of Investigating the Behaviour of Charge Material in an Ironfoundry Cupola and Some Results Obtained," to be of outstanding importance to their respective industries.

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STEEL-SEGREGATE ANALYSIS

A Paper (No. 30/1945 of the Committee on the Heterogeneity of Steel Ingots, submitted by the Inclusions Sub-committee), "A Micro-spectrographic Method for the Quantitative Analysis of Steel Segregates," by Dr. J. Convey and Mr. J. H. Oldfield, of the Bragg Laboratory, Naval Ordnance Inspection Department, Sheffield, has been issued by the Iron and Steel Institute. The following is a synopsis.

Steel-segregate analysis by the spot-spark method ("Journal of the Iron and Steel Institute," 1941, No. II, p. 183 P) gave higher average values for all elements on the segregates than those on the normal metal. The elements, manganese, molybdenum and vanadium, showed the greater percentage increase. Careful examination of the segregate analyses revealed variations in element content within a single segregate. An attempt was made to determine the graduation in composition across a segregate by a careful linear location of the actual points tested. Although the results were good, it was recognised that a technique was required whereby a continuous record of the variation in content across a segregate could be determined. A method was developed whereby the sample could be guided under a stationary upper electrode, while the photographic plate on which the spectrogram is recorded moved downwards across the camera aperture of the spectrograph. Spectrograms were obtained on which the spectral lines varied in density over their length according to local changes in the composition of the specimen along the path of the spark. By means of Meccano parts a system of transmission was designed and built. The speeds of transmission of the sample and the photographic plate were adjusted to give spectrograms of a density similar to that obtained by the spot-spark method.

Tests were made on several well-worked Ni-Cr-Mo steel bars of small section, and the results corroborated the content homogeneity of the bars. Spark traverses of the order of 7 mm. in length were made across various segregates in different types of steel and the results calibrated against standard steels. Such exposures produced spectrograms whereon the spectral lines were 5.4 cm. long. The clean definition and uniformity of the spectral lines throughout their lengths is a good proof of the continuity and smooth motion of the mechanical functioning of the traverse system. The effect of sparking on the steel samples is a crater very uniform in width (0.4 mm.) and depth (0.02 mm.) throughout its length (7 mm. approx.).

To obtain a quantitative analysis of the steels for carbon a higher steady-state potential of the spark gap was required. This was produced by blowing a small blast of dried air across the spark gap (pressure, ½ in. of water). The method was standardised and tested. Analyses of segregates were identical with those obtained with the spot-spark and traverse-spark techniques without air blast. Variations in the macrostructures of segregates were found to agree with the content curves obtained *via* a traverse on the sample. Carbon content showed a slight decrease across the segregate in Ni-Cr-Mo alloy steels.

BOOK REVIEW

"Coal—Facts about an Unknown Industry." By a Colliery Manager. Published for the "Iron and Coal Trades Review" by Chapman & Hall, Limited, 37, Essex Street, London, W.C.2. Price 2s. 6d. net.

The reviewer found this book particularly fascinating, as he felt the Author was in spirit very much like the modern foundry manager. His views, based on fundamental knowledge, do not line up with any of those promulgated by any of the political parties. In the last chapter he gives a picture of a typical day's work, and it makes one realise that he has but little time for theoretical politics, and wonder how he managed to find the leisure for writing a book.

The shortage of coal is due, in his opinion, to shortage of man-power, lack of discipline, Government control, and but little to buy with the extra money now available to the miner. The average foundryman sees quite clearly the difficulties which would surround any attempt at nationalisation of this industry. It is apparent from a study of this book that because of the ever-increasing risks undertaken by both management and miner, there is reason to believe that the civil service mentality would not quite fill the bill.

Facts which were not realised by the reviewer before reading this book are the great extent to which mechanisation has taken place; the basic difference between American and United Kingdom pits, and the influence of age—and therefore layout—on the mechanisation potential. The book is strongly recommended to foundrymen as shedding a clear light on some of the difficulties of his own industry.

V. C. F.

A NEW TYPE OF WASTER?

A photograph in "Metal Progress" shows what appears to be a log of wood with lichens or corals attached, but in reality is an aluminium alloy test-bar. The bar assumed this curious formation after heat-treatment in a bath of molten nitrate. Similar occurrences have shown up on castings. Microscopic examination showed that the aluminium matrix had been attacked. The author (Mr. J. B. Zappone) insists that the trouble is not due to either trapped flux or the nitrate bath, as castings will also "sprout" when heat-treated in an atmospheric furnace. The possibility that it is caused by a degasifier or flux used by the suppliers of the aluminium ingots (which is secondary metal) is disclaimed by the ingot makers. Have any of our readers encountered this type of defect?

THE WHITING CORPORATION, of Harvey, Illinois, U.S.A., have called our attention to an obvious misprint in our issue of March 29, wherein we stated that the Corporation was celebrating its 6th instead of 60th anniversary.

INSTITUTE OF BRITISH FOUNDRYMEN

FORTY-SECOND ANNUAL MEETING IN LONDON

Award of medals and election of officers

In the course of the London conference of the Institute of British Foundrymen, on Friday and Saturday last, the forty-second annual general meeting was held at the Waldorf Hotel, Aldwych, W.C.2, the president (Mr. J. W. Gardom) in the chair.

REPORT OF COUNCIL

The PRESIDENT, moving the adoption of the annual report of the Council for the year ended April 30, 1945, drew attention to some of the more outstanding points dealt with therein. In the first place, he said the Council had been deeply grieved during the year by the loss of the Institute's vice-president, Dr. T. Swinden. For many months Dr. Swinden had been very ill, but just before he died he was making a good recovery, and the Council had had high hopes of his full participation in the affairs of the Institute this year. His passing had been a great loss to the Institute and to the whole of the metallurgical world. During the past year the industry had also lost a number of other distinguished founders and metallurgists, among whom the president mentioned particularly Mr. Percy Pritchard, Mr. Joseph Hepworth, J.P., M.P., and Mr. John Shaw.

The president paid tribute to Mr. S. H. Russell (past-president) for his services as hon. treasurer, which had terminated last October after a period of six years. Mr. Russell had devoted a very considerable part of his time to educational matters associated with the industry, and had felt that he was unable to continue to undertake both the honorary treasurership and his chairmanship of the Institute's Educational Committee. The Council, therefore, had accepted his resignation last autumn, and had appointed Mr. C. W. Bigg (past-president) to succeed him as hon. treasurer. One could be sure that that appointment would meet with the wholehearted approval of the membership.

The tables in the annual report showed an increase of membership of more than 400 during the year, so that there was a record total of 3,368 members. He felt that that was at least partly due to the further increase in branch activities during the 1944-45 session. At the beginning of the war, for obvious reasons, the branch activities were slightly reduced, but they had now been resumed on a scale more than comparable with pre-war years. He mentioned particularly the South African branch, which had established two subsections in Cape Town and Durban, and appeared to be in a thoroughly healthy state.

The publications of the Institute had been fully maintained during the year; a number of committee reports had been presented and discussed, as well as a record number of Papers at the last annual conference. The Education Committee was one of the most active committees, under the chairmanship of Mr. S. H. Russell. In that connection he mentioned particularly the establishment of the national certificate courses in metallurgy and the establishment of a final City and Guilds examination in foundry practice. The committee had been closely associated with the development of both those matters, and was to be congratulated on the successful outcome of its endeavours.

One of the most pleasing features of the year had been the re-establishment of contact with allied foundry associations in Europe. The Institute had been in correspondence with the Belgian and French associations, and had exchanged publications issued since 1940.

MR. V. C. FAULKNER (past-president), seconding the adoption of the report, said it was one of a series which he had watched closely for more than a quarter of a century, and each one had shown its modicum of progress. This latest report gave further evidence of a crescendo in the Institute's activities, and everyone who, like himself, had been closely associated with the Institute for a long time must derive the greatest pleasure from it.

The report, which was adopted, without discussion, is printed on page 159 of this issue.

Finance

MR. C. W. BIGG (hon. treasurer), presenting the statement of accounts to December 31, 1944, and the balance-sheet as at that date, said the Institute's record membership had resulted in a record income; on the other hand, there was the sobering fact that it had also resulted in a record expenditure. As to the balance-sheet, if one compared the assets with those of the previous year one would find that they had increased by what appeared to be a considerable amount. But that needed to be regarded in the proper way; it was really due to the British Foundry Medal Fund and the Technical Council Students' Fund.

All in all the year had been satisfactory financially. The credit balance on the year's working was not so large as in the previous year; indeed, it had been on a reducing scale for the past three or four years. Mr. Bigg moved the adoption of the balance-sheet and accounts.

MR. D. SHARPE (past-president) seconding, said that inasmuch as the occasion was the first on which Mr. Bigg had presented a balance-sheet, the members should recognise that the Institute had been particularly fortunate in the calibre of the men they had had during the last few years to look after the purse strings of the Institute. Following Mr. W. B. Lake there was Mr. S. H. Russell, who in turn was followed by the equally competent Mr. Bigg. The funds and the reputation of the treasurership were in good hands.

The balance-sheet and accounts were adopted.

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Report of the Technical Council

MR. P. A. RUSSELL, B.Sc. (chairman of the Technical Council), presenting the Council's report for the year 1944-45, said the year had been one of change in the matter of organisation. The old sub-committee system was changed last year; and whilst a considerable number of sub-committees were working quite actively, only one had reached the stage of issuing a report to the conference. A number of reports would be presented in the near future, as indicated in the Council's annual report.

On the proposal of Mr. Russell, seconded by Mr. C. H. Kain (deputy chairman of the Technical Council), the report was adopted.

AWARDS

Oliver Stubbs Gold Medal

The PRESIDENT announced the Council's unanimous resolve to award the Oliver Stubbs Gold Medal for 1945 to Mr. J. Roxburgh. In making the award, he said, the Council wished to recognise the high value of the numerous Papers which Mr. Roxburgh had presented to a number of the branches and annual conferences of the Institute, and that he was the author of an exchange Paper. Further, he was president of the Sheffield branch in 1935-36, is now senior vice-president of the East Midlands branch, and had been a member of the Council, the Literary and Education Committees, and of sub-committees of the Technical Council.

Owing to circumstances resulting from the war, the medal itself could not be presented; it will be presented as soon as it can be made available. In the meantime, Mr. Roxburgh was congratulated by the president.

MR. ROXBURGH, returning thanks, said he found it very difficult indeed to express adequately his pride and pleasure in having been chosen as the recipient of the Oliver Stubbs Medal. The fact that he had been considered worthy of the award filled him with a sense of gratitude, and it would certainly be a source of great encouragement to him in the future. Since joining the Institute in 1927 he had been a member of the Sheffield branch for 12 or 13 years, and during the last 5½ years he had been associated with the East Midlands branch. He would like those two branches to be associated with his success. He would certainly treasure the medal, not only as a symbol of the realisation of one of his ambitions, but as a reminder of the pleasure he had derived from the work which it recognised.

E. J. Fox Gold Medal

DR. J. E. HURST (past-president, and one of the assessors for the award of the medal) announced the award of the E. J. Fox Gold Medal to Mr. J. W. Gardom, the president.

MR. E. J. FOX, presenting to Mr. Gardom a certificate in token of the medal (which latter will be presented to him when circumstances permit), said it gave him a good deal more than ordinary pleasure to ask Mr. Gardom to accept it; he could not conceive of a more outstanding man in the foundry industry of this country. During the past six or eight years Mr. Gardom had built up, largely in a consultative capacity, a practice connected with the foundry industry, of which any man might be very proud. Mr. Fox added that he and his colleague, Mr. P. H. Wilson, had been nurtured in the cast-iron foundry industry, and they were proud that Mr. Gardom was so typical a representative of that industry. Having started his career on the engineering side, Mr. Gardom had later added foundry work; that probably accounted for the outstanding position he had built up for himself in the foundry industry.

MR. GARDOM said he always felt that he was just an ordinary member of the Institute and of the foundry industry; he still wondered why he should have been chosen as the recipient of all the honours that had been bestowed upon him. He had really started life in a foundry, which was a laboratory foundry, and he had always been in the foundry. But at one time the interests of the foundry had clashed with the engineering side of the works with which he was connected, and the foundry had taken over the engineering side with a certain amount of success; he had taken it over on behalf of the foundry.

Commenting that there was nowhere more interesting than the foundry, in which one could satisfy one's desires and instincts, he said that one could satisfy one's energy by breaking up a piece of pig-iron, one could satisfy the artistic taste by moulding something with the hands, and one satisfied one's desires when one broke open a mould half-an-hour after casting, even though one knew that it should stand until the following morning!

Throughout his membership of the Institute, extending back some 23 years, he had received nothing but kindness, right from the time when he was introduced to Mr. Faulkner, then hon. secretary of the London branch. He accepted the medal as an honour to all his colleagues on the Technical Committee, with which he was associated, and throughout the Institute as a whole. If in the future the members of the Institute would accept his service, in whatever capacity, he would try to repay by that service the kindness he had received.

British Foundry Medal

The British Foundry Medal and prize was awarded to Mr. John Vickers, of Rolls-Royce, Limited.

MR. BARRINGTON HOOPER, C.B.E., the donor of the medal, presented the prize, in the form of a cheque, to Mr. Vickers; the medal will not be available until later. He liked to regard the medal as the Rolls-Royce of medals. The name "Rolls-Royce" had come to be regarded throughout the civilised world as representing the very highest degree of mechanical skill, art and craftsmanship; and it was fitting that the medal should be presented to Mr. Vickers, the Rolls-Royce of foundrymen. The first award had been made to Mr.

Gardom, which was a matter for pride; it was with equal pride that he presented it in token to Mr. Vickers.

The reason why the medal had been inaugurated, continued Mr. Barrington Hooper, was the recognition that it was useless to have knowledge and ability if one had not also the power to make it known. His own function in the industry as a publicist was to provide a voice, and it was realised that the technical contributions of the members were among the greatest assets of any Institute. The desire was to recognise technical contributions of the highest degree. Mr. Vickers had found time, even though he was concerned with the production of the engine which had saved civilisation in the air, to make two very important contributions to the technical literature; indeed, they were amazing Papers.

MR. VICKERS, recalling the reasons which had prompted him to present his Papers, said he had felt for some time that the efforts of British foundrymen in the war had been outstanding, but were not being recorded. Following a visit to America in 1942 to see the work of the Packard Motor Company in the manufacture of Merlin engines, he had found to his amazement that there was not a single gravity die casting in that engine. In this country, for a variety of reasons, primarily economic, but also due to the shortage of labour, we had been compelled to concentrate our efforts first on introducing methods which would enable us to use the lowest possible degree of skill, and secondly, in improving the quality of castings, to reduce wherever possible the subsequent operations required before each part could go into the engine. Gravity die casting was obviously one of the methods which would provide a channel for that effort. The general manager, Mr. Hythe, had laid it down that, no matter how well Messrs. Rolls-Royce built Merlin engines, they could not possibly hope to make them as good as the men who used them in the air. With that guiding object, the company had sacrificed "spit and polish" on the Merlin engine during the war years; superfluous operations such as shine were cut out. The introduction of gravity die casting had meant, not only that spit and polish was not in any case necessary, but also it represented a step in the direction of pushing up the mechanical properties of the pieces, and at the same time increasing the rate of production and introducing a very much lower standard of skill in the production of the engine.

He had felt that the achievements of British foundrymen, in that direction during the war years could be recorded with advantage, and therefore, he had put on record the efforts of the Rolls-Royce Scottish team. He gave full credit to the men in that team, and said that he personally was just the man at the rudder. During the war period they had been favoured in respect of the younger men who had occupied the senior executive positions. They had had first-class backing financially, they had been able to develop ideas rapidly and bring to bear the full resources of the company on specific problems, and to develop them to the production stage with a minimum of delay. During the stress of the early years of the war they had had the very best possible support from the Ministry of Aircraft Production in introducing new schemes.

He did believe in lightening the efforts of the Rolls-Royce Scottish team on sand and gravity die castings particularly; and that team, many of them new to the light alloy industry, had scored a bull's eye. He had felt that he ought to record their efforts. He was proud to accept the medal on his own behalf and on behalf of the men in Scotland who had helped him to achieve the results that were achieved.

DIPLOMAS

It was announced that the Institute's Diploma had been awarded to the following:—

Mr. A. Dunlop, for a Paper on "Precision Casting by the Lost Wax Process" (presented to the Birmingham branch).

Mr. E. R. Dunning, for a Paper on "Syphon Brick Method of Cupola Tapping" (Birmingham branch).

Mr. P. T. Holligan, for a Paper on "Bearing Developments" (London branch).

Mr. W. Montgomery and Mr. J. Doig, for joint Paper on "Methods and Problems Indigenous to a General Engineering Ironfoundry" (Scottish branch).

Mr. G. W. Nicholls, for a Paper on "Moulding Sands and Gases in Relation to Casting Defects" (West Riding branch).

Mr. Montgomery is already a Diploma holder, and his Diploma will be endorsed in respect of the award recorded above.

Re-election of President

MR. D. H. WOOD, proposing the re-election of Mr. Gardom as president for a second year, said that the lamentable death of Dr. Swinden, the junior vice-president, during the past year had placed the General Council in difficulty. After serious consideration the Executive Committee and the Committee of Past-presidents had recommended that Mr. Gardom be asked to continue in office as president for a further year. Mr. Gardom had accepted, but only as the result of strong pressure, for it was contrary to his wishes.

In a tribute to Mr. Gardom, Mr. Wood said that versatile, adaptable, indefatigable, and with an inexhaustible thirst for knowledge on every aspect of foundry theory and practice, Mr. Gardom was also a man of infectious good humour and great resourcefulness. He possessed a rare combination of audacity and calculation which enabled him to take great risks and convert them into certain successes. His conduct of meetings, in Council and in committee, showed that he understood fully the fine art of omitting matters which were not essential.

MR. F. W. ROWE, B.Sc., seconding, said Mr. Gardom had served the Institute for many long years, and they had been years of continued success. The Institute was fortunate in retaining his services for so long.

MR. GARDOM, returning thanks for his re-election, said the office carried considerable responsibilities; indeed, more responsibilities than he had realised a

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year ago. But he would continue to put forward the claims to what he considered to be the top position for foundrymen.

Discussing the problem of the returning ex-Service men, the president said he felt that a man who could adapt himself to Dunkirk, El Alamein, Burma and the beaches of Normandy did not constitute so difficult a problem as some people appeared to think. He had been accustomed to working beside men who knew the job as well as he did, he was well trained, under the direction of men who pulled him up if he were going wrong and showed him where he was going wrong, and had been subjected to a discipline which he had accepted willingly. If managements would realise that, they would not have quite so much difficulty with the workpeople as they expected. The president, as one who had a great admiration for the working man, said he felt that quite a lot of the faults were in direction. Let them make a decision; give a man a job and let him do it!

Recalling that he had started a students' fund a year ago to enable young men to attend committee meetings of the Technical Council, he said that, from the reports he had received from young men, the scheme had been a great success, and he was very pleased with it. but it seemed that the management of the fund did not know how to spend the money available. One of his stipulations was that the money must be spent, and he urged the management to see that it was spent. Possibly students could be encouraged to attend meetings if their expenses were paid from the fund; or the money could be used to help them to attend short courses or to visit works.

Election of Vice-presidents

MR. F. J. COOK, M.I.Mech.E. (past-president), proposed the re-election of Mr. D. H. Wood as senior vice-president, and recalled that he had been responsible for nominating Mr. Wood as junior vice-president in the first place. The attributes of versatility, adaptability, and so on which had been applied to the president applied also to Mr. Wood, and he would make eventually a very likeable and efficient president.

MR. H. WINTERTON (past-president), seconding, said he had known Mr. Wood as a thoroughly good business man for many years. His activities in the Institute had been numerous and very vigorous; and when he became president in due course the members could be sure that he knew them all, he knew their desires, and knew how high they wanted to place the Institute in the estimation of the engineering and foundry world.

MR. WOOD expressed his appreciation of his re-election as senior vice-president for the fifth year in succession. He hoped that it would be possible to arrange a conference next year in Birmingham, perhaps not on the normal peacetime scale, but at any rate somewhat less austere than the conferences had necessarily been during the past five years.

His interest in the Institute had extended over 26 years; and in spite of the fact that he had been in cold storage for the past five years his keenness in all its activities had not been chilled. Anything he could do to further the interests of the Institute he would count it a privilege to do.

MR. R. B. TEMPLETON (past-president, London branch), proposing the election of Mr. P. H. Wilson as junior vice-president, said that everyone present knew of the great work he had carried out during the last 25 years in association with the Stanton Ironworks; he had become deputy managing director of that great company, which had done so much in progress generally in connection with the industry. He served also on the Council of the British Cast Iron Research Association, and had been a member of the Institute of British Foundrymen for more than 20 years, during which time he had contributed several research Papers. He was an Officer of the Order of the British Empire, an honour which was richly deserved and one which was not lightly bestowed by his Majesty. The members could be confident that in due course he would fill the presidential chair with the grace and fulness of his predecessors.

MR. J. G. PEARCE (Director, British Cast Iron Research Association), who seconded, described Mr. Wilson as one of the outstanding foundrymen of this country. He had big ideas, he had created the means for bringing those ideas to fruition in a big way, and he was worthy of the highest honours the industry could bestow on him. During the war he had been a tower of strength on the Anti-glare Committee and on the industry's Fuel Committee; as well as being a member of Council of the B.C.I.R.A., he was a vice-president and an honoured and valued member of its Executive Committee.

MR. WILSON, returning his thanks, said it was 45 years ago since he had moulded his first casting, and he had already been at work one or two years before that. He still looked forward to a few more years of service to the foundry industry. Although his early training was in mechanical engineering, at a very early stage he had branched out into the foundry side. During his many years of association with the industry it had been a source of satisfaction to observe the increase of technical knowledge which had become available generally to foundrymen; particularly during the last 10 years great advancement had been made. That progress was very largely and directly due to the activities of the Institute.

Auditors

On the motion of Mr. G. R. Shotton, seconded by Mr. J. K. Smithson, J. & A. W. Sulley & Company, chartered accountants, were appointed auditors for the ensuing year.

Election of Members of Council

The ballot for the election of members of Council resulted in the election of the following:—Mr. L. W. Bolton (Birmingham); Mr. Barrington Hooper, C.B.E. (London); Mr. E. Longden (Lancashire); Mr. P. A. Russell (East Midland), and Mr. John Vickers (Scottish).

INCREASE OF SUBSCRIPTION

MR. C. W. BIGG (hon. treasurer) introduced two resolutions with a view to raising the rates of subscriptions of the various classes of membership. It might be considered unfortunate, he said, that the advent of a new treasurer should coincide with a request for increased subscriptions. But no part of the movement for increased subscriptions could be attributed to the traditional cleanliness of the new broom. Increase of subscriptions was part of the Institute's policy when the draft new bye-laws were drawn up in 1938; but due to various circumstances the new subscriptions were not introduced. His predecessor, Mr. Russell, when reviewing the 1938 accounts, had reported an excess of income over expenditure of £122, and had emphasised that that balance was due solely to the existence of the South African branch; had it not been for increased subscriptions in that branch, the surplus would not have been there. In 1939 the income was greater than the expenditure by only £25.

It was not surprising, therefore, that Mr. Russell had urged a close investigation into the income and expenditure position of the Institute; a thorough investigation had been made. A joint committee of members of the Executive and Finance Committees had considered the matter and had reported to the Council. The recommendations of the joint committee had been sent to each member of Council, and had been sent to the branches.

Mr. Bigg proposed the following resolution:—"That the following resolution adopted at the adjourned annual general meeting, held at Manchester on October 15, 1938, be and is hereby rescinded: 'That the bye-laws so altered and added to and as contained in the print laid before the meeting be and the same are hereby adopted as the bye-laws of the Institute in lieu of the present bye-laws, such present bye-laws to cease to have effect, and the byelaws so adopted to come into force and effect when and so soon as the approval of the Privy Council to the bye-laws so adopted and the certificate of such approval under the hand of the Clerk of the Privy Council have been obtained.'"

MR. BARRINGTON HOOPER, C.B.E., seconding, pointed out that the resolution merely cleared the decks, wiping out a previous bye-law to enable a new one to be passed.

The resolution was carried.

MR. BIGG moved the second resolution, as follows:—"That the following be and is hereby adopted as bye-law 7 of the Institute in place of the present bye-law 7, which shall cease to have effect, and the bye-law 7 hereby adopted shall come into effect when and so soon as the approval of the Privy Council to the bye-law so adopted shall have been obtained. 'Bye-law 7. The annual subscription shall be: ordinary member, £3 3s.; associate member, £2; associate 21 years of age and over, 10s.; associate under 21 years of age, 5s. No subscription shall be payable by the hon. secretaries of branches during their tenure of office or a member who is a representative of a subscribing firm.'"

MR. GAMESON, seconding, said that in 1933 the figures which were given as representing the cost per associate member were very much in excess of the subscription. The shorthand for that was that the Institute was doing a brisk trade selling nine-pennyworth for sixpence. No one could claim that the administration of the Institute was extravagant; it was very efficient, but it must maintain a margin for development, and the figures in the new bye-law were very reasonable.

MR. P. A. RUSSELL supported the resolution because his brother, Mr. S. H. Russell, had been pressing for the proposed alterations, which had his wholehearted approval after his experience as hon. treasurer.

MR. F. J. COOK, who also supported the resolution, said that during his year of office (1908-09) the subscriptions had been doubled, and it had been urged then that the Institute would lose many members. But, in fact, there had been a greater increase of membership in that year than ever before.

The resolution was carried unanimously.

Greetings to Kindred Bodies Overseas

On the proposal of the president it was agreed that messages of greeting be sent to the American Foundrymen's Association and such foundrymen's associations in allied European countries as it was possible to communicate with.

A communication had been received from the foundrymen in Belgium. He hoped to be allowed to go to France within the next two months to represent the Institute at a meeting there.

Welcome to Prof. T. Turner

PROF. T. TURNER (past-president, Institute of Metals) was welcomed by the president; and in the course of his response he recalled that it was 60 years ago that he had read his Paper on silicon before the Chemical Society.

The business of the annual meeting was concluded.

EDWARD WILLIAMS LECTURE

The Edward Williams Memorial Lecture was delivered by Col. W. C. Devereux, F.R.Ae.S., M.I.A.E. (Member), (managing director, High Duty Alloys, Limited), who dealt with "The Future of the Light Metal Foundry Industry."

Introducing Col. Devereux, the president commented that he was the first Edward Williams lecturer to deal exclusively with light metals. That emphasised, if emphasis were necessary, that the concern of the Institute was castings, in whatever metal they might be produced.

The lecture will be printed in a subsequent issue.

Vote of Thanks

MR. A. LOGAN, proposing the thanks of the Institute to Col. Devereux for his lecture, said the world had progressed through several phases—the neolithic or stone age, the copper age, the bronze age, the iron age, and now we were entering upon the aluminium age. It was true to say that the war had been won largely by the supremacy both in numbers and performance of aircraft. Aircraft relied largely on light alloy castings. Standing on the threshold of peace,

I.B.F. Annual Meeting

what could be more fitting than that the eighth Edward Williams lecture should be devoted to the future of the light alloy industry? And who could be more fitted to deal with the subject than Col. Devereux?

Col. Devereux was a realist, yet a realist with vision. Long before the war he was in close contact with affairs in Europe, and had seen clearly the inevitable result of the Nazi policy. His fears and warnings were scarcely heeded; yet undeterred, he had set to work to build up the marvellous organisation the existence of which at the outbreak of war was one of our greatest possible national assets.

Reference was made in the lecture to the phenomenal growth of light alloy founding in the last 10 years, and it should be remembered that a considerable proportion of the large outputs mentioned had proceeded from the concerns which the lecturer so successfully directed. Much of the success of those concerns was due to his realistic outlook, coupled with vision and imagination. There was ample evidence of those two qualities in the lecture. Further evidence, if it were needed, was provided by two publications from his pen, "Post-war Reconstruction of Industry in South Wales" and "An Industrial Plan for West Cumberland." Both of them had dealt with plans for industrial reconstruction in potentially depressed areas, and Mr. Logan commended them as examples of scientifically planned area reconstruction taking advantage of the available natural resources, and which would provide efficient production and full employment and eliminate all possibility of the desperate state of affairs which had befallen certain areas in the "between-wars" period.

With regard to the part played by research in industry, Col. Devereux had always advocated it and had put into practice what he believed, with the result that at Slough there were control and research laboratories second to none, and which had to be seen to be fully appreciated. Members of the I.B.F. in the London area had had an opportunity of inspecting those laboratories, and would agree that no more outstanding and vivid illustration of the Institute's own motto, "Science Hand in Hand with Labour," could be seen anywhere.

Among other things, Col. Devereux successfully farmed 800 acres, and among the many letters he was entitled to place after his name were the mysterious three, M.F.H. In the Slough area he was held in high regard and esteem. The Slough section of the Institute had particular reason to be grateful for his interest and support and for the excellent facilities so freely placed at its disposal. The eighth lecture was a worthy addition to the Edward Williams series, and would be read with the greatest interest.

MR. F. H. HOULT, seconding, said he could only add appreciation of a very excellent lecture presented in a very excellent manner. Col. Devereux was recognised as a leader in the light alloy industry and as an enthusiast.

(*Continued at foot of next column.*)

IMPORT DUTIES RESTORED

IRON AND STEEL AND MACHINERY

Pre-war rates of import duty are restored on a number of classes of goods as a result of new orders which will come into operation at the beginning of July. Among these are:—Iron and steel products; metals and alloys of metal; machinery and tools; motor-cars; and electrical goods.

The orders do not involve any question of tariff policy. They carry out the intention announced by the Chancellor in his Budget statement of restoring to their pre-war level the duties on goods which during the war have been predominantly imported for Government purposes and exempted from duty as a matter of administrative convenience.

As regards iron and steel products, the orders do not restore the provisions in the pre-war tariff under which additional import duties were not charged on goods accompanied by quota certificates; arrangements to replace the pre-war quota system are, however, under consideration. As regards machinery, the restoration of duties will be accompanied by the reopening of the system under which applications may be made for licences to import consignments of machinery without payment of duty.

IMPORT OF PLANT AND MACHINERY

The Board of Trade announce that it will be necessary for the time being, in order to economise in exchange and shipping, to retain the existing regulations controlling imports, and no general relaxation can yet be effected. In the field of machinery and plant, however, there are some kinds not obtainable from within this country which British industry, after nearly six years of war, will require if it is to be able to turn to its peacetime work as labour and capacity become freed from war work. The Board of Trade are, therefore, now prepared to consider applications to import machinery and plant needed for the production of civilian type goods for the export trade, or required for important home consumption, where such machinery and plant cannot be obtained from home sources. The applications should be made to the Import Licensing Department, 1-6, Tavistock Square, London, W.C.1.

(*Continued from previous column.*)

The vote of thanks was accorded with acclamation.

COL. DEVEREUX, in his response, said the only way in which this country could live was by its ability to fabricate and to sell; the standard of life of the country was gauged on how much we could fabricate and how much we could sell. We should fall back into the doldrums if we did not face up to that fundamental truth. He believed the whole essence of being in business was to create a better life.

The PRESIDENT, at the end of his first year as president, took the opportunity to thank Mr. John Bolton, acting secretary, for his great help.

ANNUAL REPORT OF THE INSTITUTE OF BRITISH FOUNDRYMEN

With Thirteenth Report of the Technical Committee

This report covers the period May 1, 1944, to April 30, 1945.

Finance

The rapid increase of membership of the Institute has naturally been reflected in the accounts for 1944, which show a record total income of £4,868 (of which subscriptions represent £4,525) and a record expenditure total of £4,521, leaving a surplus of income over expenditure for the year of £347 to be transferred to the accumulated fund, which now totals £5,282. It has, however, become apparent to the Council that notwithstanding the surpluses which, owing to certain special circumstances it has been possible to show during the war period the cost of membership has so increased as to make the present subscription rates—particularly that of associate members—uneconomic when related to normal working conditions and having regard to the development of the Institute.

For these reasons it is intended at the annual general meeting to be held in London, on June 16, to propose increases in the subscription rates and if these are agreed to and the approval of the Privy Council is given before the end of the current year, the new rates will become operative as from January 1, 1946.

Membership

Once again the Council is able to report an increase in membership, bringing the total number of members to 3,368. Full details are set out in Tables I and II.

The Council have had great pleasure in conferring honorary life membership upon Mr. W. B. Parker, of Rugby, one of the original members of the Institute. Mr. Parker's long continuing interest in the Institute's affairs and his contributions to the knowledge of the metallurgy of cast iron have made him widely known and respected.

It is with regret that the Council has to record the deaths of 11 members, among them Dr. T. Swinden, who was elected junior vice-president of the Institute at the annual general meeting in June, 1944. In addition the following have died:—Mr. E. Curran, Senr., member, Wales and Monmouth branch, elected 1944; Mr. W. Dayson, member, Scottish branch, elected 1922; Mr. J. A. Durie, Jnr., member, South African branch, elected 1937; Mr. G. M. Priestley, member, Lancashire branch, elected 1943; Mr. P. Pritchard, member, Birmingham branch, elected 1924; Mr. J. Stafford, M.Sc., A.R.I.C., member, Lancashire branch, elected 1932; Mr. L. Turner, member, past-president, West Riding of Yorkshire branch, elected 1927; Mr. W. Potts, associate member, Lancashire branch, elected 1918; Mr. W. B. Davidson, associate member, Scottish branch, elected 1922; Mr. J. E. M. Gess, associate member, West Riding of Yorkshire branch, elected 1939; Mr. W. Sherratt, associate member, Sheffield branch, elected 1923; Mr. F. W. Taylor, associate member, Birmingham branch, elected 1938 (Mr. Taylor and Mr. Gess were in H.M. Forces. Mr. Taylor was killed in action in Italy and Mr. Gess in a flying accident).

Since the end of the official year covered by this report, the Council has learned with deep regret of the death of Mr. J. Hepworth, J.P., M.P., president of the Institute, 1938-39.

At the conclusion of the report the names of 106 members serving in his Majesty's Forces are listed. This list may be incomplete and members are invited to notify the secretary of any omissions or errors. It gives the Council great pleasure to announce that Capt. T. Shanks and Capt. P. B. Lake have been released from prisoner-of-war camps in Europe.

The Council desire to take this opportunity of congratulating the following members who have been honoured during past year:—Mr. P. B. Brown, member, who was knighted in the New Year Honours List; Mr. H. Schofield, B.Sc., associate member, Lancashire branch, resident at Ichapur, India, who was awarded the O.B.E.; Dr. W. T. Griffiths, member, who was re-elected president of the Institute of Metals, 1945-46; Dr. J. E. Hurst, past-president, who was elected president of the Staffordshire Iron and Steel Institute; Mr. J. W. Gardom, president, who was elected president of the Institute of Vitreous Enamellers, 1944-45; Mr. G. T. Hyslop, member, who was elected president of the Association of Bronze and Brass Founders, 1945-46, and Dr. W. F. Chubb, member, who was appointed to the newly-created Chair of Metallurgy in the University of Istanbul.

Awards

E. J. Fox Gold Medal.—On the recommendation of the assessors, Sir William J. Larke and Dr. J. E. Hurst, the Council unanimously awarded the E. J. Fox Gold Medal for 1944 to Mr. FitzHerbert Wright in recognition of his outstanding contributions to the progress of the foundry industry, particularly in the formation and organisation of the Council of Ironfoundry Associations of which he is chairman. The presentation to Mr. Wright was made at the 1944 annual general meeting by Mr. Fox.

Oliver Stubbs Gold Medal.—The 1944 award of the Oliver Stubbs Gold Medal was unanimously made to Mr. W. Y. Buchanan in recognition of the many Papers which he has presented to the Institute and for his services as a member of the Technical Committee and the Sands Sub-committee.

British Foundry Medal.—The first award of the British Foundry Medal was made in 1944 to Mr. J. W. Gardom in recognition of the excellence of his Paper entitled, "The Mass Production of a Manganese Steel Casting," which was published in the

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"Proceedings," Vol. XXXVI. The cash award associated with the medal was made to Mr. E. Longden in recognition of the excellence of his Paper on "Fluid Pressure in the Foundry." This Paper is also published in Vol. XXXVI of the "Proceedings." The presentations of the medal and award were made by Mr. Barrington Hooper, the donor of the medal, at the annual meeting.

Diplomas.—Diplomas were awarded to the following members during the year:—Mr. J. Blakiston (West Riding of Yorkshire branch); Mr. M. R. Hinchcliffe (Scottish branch); Mr. I. Ross (London branch); Mr. R. C. Tucker, M.A. (Sheffield branch), and Mr. A. Wood (Birmingham branch).

Edward Williams Lecture

The Edward Williams Lecture for 1944 was delivered at the annual meeting at Manchester, on June 10, by Sir Charles G. Darwin, K.B.E., M.C., Sc.D., M.A., F.R.S., Director of the National Physical Laboratory, whose subject was "Tolerances and Inaccuracies in Physics."

Branch Activities

Full syllabuses of meetings have been arranged by all branches and sections during the year including the Newcastle branch, which has been able to resume its full activity, and the Slough section of the London branch, which has now completed its first full session following upon its formation in 1944. In all, about 120 branch meetings have been held during the 1944-45 session, which is comparable with pre-war standards. In addition a number of branches have been able to arrange a limited number of works visits.

Particular mention may be made of the welcome accorded to the "talkie" film which accompanied Mr. M. J. Gregory's Paper on "Wartime Calls on Women to Make Aluminium Air-cooled Cylinder Heads," presented as the American Foundrymen's Association Exchange Paper to the annual meeting last year. Not only has this film attracted record attendances at meetings of eight of the branches and sections, but it has been loaned for private exhibition at various works on about ten occasions.

The president has attended at least one meeting of all the United Kingdom branches and all but two of the sections during his year of office.

The South African branch has, as its membership figures suggest, continued its good progress during the year, and the Cape Town section has successfully been launched. There is so far no definite news whether a Durban section has been started, but it is known that such a project is under consideration by the branch council. Furthermore it is understood that the branch is inaugurating certain research into the founding properties of South African sand deposits and has taken the first steps towards the establishment of a technical library of foundry publications in the Dominion.

The Council has much pleasure in tendering to the branch presidents, councils, and secretaries, its thanks for the most successful way in which the branch affairs have been conducted during the year.

Publications

Vol. XXXVI of the "Proceedings" has been issued during the year, and contains a selection of the Papers presented to the branches during the 1943-44 session as well as the Papers presented to the annual meeting in 1944. The Council has also approved the publication of a further report from the Education Committee. It will shortly be issued as Special Report No. 5, and will be entitled "The Education and Training of the 'Foundryman' Apprentice and Graduate Entering the Industry." The report of the Joint Committee on Sand Testing entitled, "Methods of Testing Prepared Foundry Sands," will shortly be completed and the Council has made arrangements for each member of the Institute to be supplied with one copy, gratis. The Joint Committee consists of representatives from the Moulding Materials Sub-committee of the Iron and Steel Institute, the Technical Committee of the Institute of British Foundrymen, the British Cast Iron Research Association, and the British Non-Ferrous Metals Research Association, and its report will describe methods of recommended procedures for the routine testing of all types of prepared moulding and core sand.

The Council has also authorised the issue of a booklet, "Notes for the Guidance of Authors of Papers," which have been prepared by the Literary Committee. The publication gives guidance as to the layout and illustration of branch and annual meeting

TABLE I.—*Changes in Membership*, 1944–1945.

	Subscribing firms.	Members.	Associate members.	Associates.	Associates (students)	Totals.
At April 30, 1944	127	1,253	1,446	85	35	2,946
Additions and transfers from other grades ..	25	142	292	23	41	523
	152	1,395	1,738	108	76	3,469
Losses and transfers to other grades	—	21	56	13	11	101
At April 30, 1945	152	1,374	1,682	95	65	3,368

Papers and intending authors are invited to obtain copies from the secretary or branch secretaries.

Educational Activities

The Education Committee, under Mr. S. H. Russell's chairmanship, has been active not only in the preparation of the above mentioned report but also in other matters affecting apprentice training and foundry education.

Mr. J. W. Gardom and Mr. F. W. Rowe, on behalf of the committee, gave evidence before the Ministry of Education's Higher Technological Education Committee, which is under the chairmanship of the Rt. Hon. Lord Eustace Percy.

Close touch has been maintained with the City and Guilds of London Institute through representation on the Advisory Committee for the examinations in foundry practice and patternmaking. Reference was made in the last annual report to the establishment of a final examination in foundry practice, and it is now possible to report that a syllabus for this examination has been completed. Revisions have also been made in the syllabuses for the intermediate examination and the patternmaking examination syllabuses have been slightly modified. It is understood that the City and Guilds intend these syllabuses to come into effect for the 1947 examinations and copies of them will shortly be available to members on application to the secretary.

In view of the establishment of the final examination the Council has resolved that as from 1947 the Institute shall no longer endorse the certificates issued by the City and Guilds in respect of their intermediate examinations nor those issued in respect of the equivalent examinations organised by regional examining unions. Endorsement will, therefore, be given only to the final certificates issued by the City and Guilds. Members may also be interested to learn that with the establishment of the final foundry practice examination the City and Guilds has decided to award a full technological certificate countersigned by the Ministry of Education and the president for the time being of this Institute to candidates who obtain an intermediate certificate or have passed an equivalent examination held by one of the regional examining unions, and have passed the final examination. For this purpose a certificate of having passed the foundry practice and science examination as held by the City and Guilds between 1932-46 will rank as equivalent to the intermediate certificate. Full technological certificates will also be awarded in respect of patternmaking examinations as heretofore.

The results of the City and Guilds examinations held in 1944 are as follow:—

Patternmaking—

Intermediate—No. of candidates, 39; pass 1st class, 8; pass 2nd class, 18.

Patternmaking—

Final—No. of candidates, 19; pass 1st class, 3; pass 2nd class, 10.

Foundry Practice and Science—

No. of candidates, 55; pass 1st class, 11; pass 2nd class, 27.

Buchanan medals and book prizes were awarded to candidates in the foregoing examinations as follow:—

PATTERNMAKING—FINAL:—

Book Prizes.—E. G. Gardner, Sheffield, and H. Eyre, Sheffield.

FOUNDRY PRACTICE AND SCIENCE:—

Silver Medal.—J. M. Goymour, Ipswich, and F. W. Herbert, Birmingham.

A further important development during the year has been the establishment of an ordinary and a higher national certificate in metallurgy. As in the case of the national certificates in mechanical engineering, the Council has agreed to endorse national certificates in metallurgy in respect of foundry subjects in those cases where a candidate has been successful in the exami-

TABLE II.—*Analysis of Membership at April 30, 1945.*

Branch.	Subscribing firms.		Members.		Associate Members.		Associates.		Associates (students).		Totals.	
Birmingham	14	(13)	210	(194)	198	(164)	15	(14)	4	(4)	441	(389)
Bristol	5	(4)	64	(56)	66	(50)	—	(1)	1	(—)	135	(111)
East Midlands	9	(7)	94	(88)	201	(170)	6	(5)	6	(2)	316	(272)
Lancashire	18	(16)	146	(135)	243	(234)	14	(16)	1	(1)	424	(402)
London	18	(18)	279	(267)	214	(182)	8	(5)	—	(—)	519	(472)
Middlesbrough	1	(1)	41	(42)	71	(62)	6	(3)	23	(11)	142	(119)
Newcastle	13	(9)	37	(26)	31	(12)	23	(19)	6	(5)	110	(71)
Scottish	10	(10)	126	(118)	247	(224)	3	(3)	4	(3)	390	(358)
Sheffield	7	(7)	104	(95)	92	(77)	2	(2)	—	(—)	205	(181)
Wales and Monmouth	2	(—)	60	(48)	75	(61)	2	(1)	18	(9)	157	(119)
W.R. of Yorks	10	(6)	81	(71)	119	(117)	4	(5)	—	(—)	214	(199)
South African	43	(35)	102	(86)	98	(71)	12	(11)	—	(—)	255	(203)
Unattached	2	(1)	30	(27)	27	(22)	—	(—)	—	(—)	59	(50)
Totals	152	(127)	1,374	(1,253)	1,682	(1,446)	95	(85)	65	(35)	3,368	(2,946)

Figures in brackets are totals at April 30, 1944.

Institute of British Foundrymen

nation and has undertaken an approved course of study in those subjects.

The establishment of new foundry classes in various centres proceeded further during the year. In Lancashire part-time day courses at Openshaw (Manchester), Warrington, and St. Helens, were commenced in September, 1944, having been organised jointly by the Institute and the Manchester and District Ironfounders Employers' Association in conjunction with the education authorities concerned. At Stoke-on-Trent the North Staffordshire Ironfounders' Association are negotiating with the educational authorities for the establishment of a fully-equipped apprentice school and have consulted the Institute on a number of matters relating to this comprehensive scheme. Preliminary enquiries and surveys for educational schemes have also been commenced in the London area under the ægis of the London Branch Council.

The preparation of the notes for the guidance of teachers in foundry subjects, which was mentioned in the last annual report has been somewhat delayed by the changes made in the City and Guilds syllabuses which the notes are intended to cover. Nevertheless, good progress is now being made and it may be expected that the notes covering the new intermediate foundry examination syllabus will be available to teachers before the end of the current year.

Kindred Associations

Cordial relations continue to exist between the Institute and a number of kindred institutions and societies and a number of joint meetings between branches and the local sections of the Iron and Steel Institute and other institutions have been arranged during the session. Co-operation has also been maintained as fully as possible with the American Foundrymen's Association with whom the normal Exchange Paper arrangement has been continued, Mr. M. J. Gregory being the American author, and Mr. J. Vickers the British author in 1944. Their Papers are both printed in Vol. XXXVI of the "Proceedings."

It is with great pleasure that the Council announce that correspondence with the French and Belgian foundry technical associations has been resumed following upon the success of allied arms on the Continent. Letters of greeting and good wishes from Prof. P. Chevenard, president of the French Association, and M. R. Duprez, secretary of the Belgian Association, were read to the Council meeting in January from which reciprocal messages were sent. Letters have also been received from M. Paul Ropsy, past-president of the International Committee of Foundry Technical Associations and of the Belgian Foundrymen's Association, and other distinguished French and Belgian founders. It is evident from this correspondence that there will be a considerable demand from liberated European countries for copies of the Institute's publications including "Proceedings," and as Vol. XXXIV and XXXV for 1940-41 and 1941-42 are out of print, the Council will be very much obliged if members having surplus copies of these two volumes will communicate with the secretary.

Appointment of Representatives

The Institute continues to be represented on the governing bodies and committees of a number of educational establishments and committees appointed by trade associations and on numerous committees of the British Standards Institution. A list of these appointments was published in the list of members issued in November, 1943, since when a number of alterations and additions have been made. A further list will be published as soon as conditions allow.

Ironfounding Industry Fuel Committee

The activities of the Ironfounding Industry Fuel Committee and of its 14 regional panels have been continued during the year under the chairmanship of Mr. J. G. Pearce, M.Sc. Mr. W. J. Driscoll, B.Sc. (Eng.) has continued to act as full-time Fuel Officer and the acting secretary of the Institute has been the secretary of the committee, on which the Institute is represented by Mr. J. W. Gardom, Mr. A. E. Peace, and Mr. P. A. Russell. Inspections by the regional panels had, by March 1, 1945, been made to foundries producing approximately two-thirds of the country's output of iron castings. A proportion of the outstanding foundries are either known to be operating on a high level of efficiency so far as fuel consumption is concerned or are outside the jurisdiction of the committee. Others are small consumers of fuel or in such outlying districts as to make their inspection impracticable or uneconomic. In view of the satisfactory position of its work, the committee's activities have now been substantially reduced. The regional panels of the committee were dissolved on March 31, 1945.

The Council desires to tender to its representatives on the committee and to the officers and members of the regional panels (the majority of whom are members and branch officers of the Institute) their appreciation of the very considerable amount of work which has been done by them over the past two and a half years and notes with pleasure the acknowledgment of the committee's usefulness which has been received from the Ministry of Fuel and Power.

Council

The Council and the Executive, Literary and Awards, and Finance Committees, have each held four meetings in London, and at Manchester and Birmingham, and one joint meeting of the Finance and Executive Committees has been held at Birmingham. Four meetings of the Education Committee have also been held and particulars of the meetings of the Technical Council and its sub-committees are given in their report.

A new committee, known as the Charter and Bye-Laws Committee, was appointed by the Council in January last, in order to review the position with regard to a renewal of the Institute's application to the Privy Council for a supplementary charter and a

revision of the bye-laws which were agreed to at the annual general meeting in 1938. These matters have been in abeyance during the war, but the new committee, which is under the chairmanship of Mr. D. H. Wood, senior vice-president, has so far held one meeting.

Of the 10 members of the Council elected by ballot for a period of two years, five retire each year. Those who retire at the annual meeting in 1945 are Mr. L. W. Bolton, Mr. V. Delport, Mr. Barrington Hooper, C.B.E., Mr. E. Longden, Mr. P. A. Russell, B.Sc. These members offer themselves and are eligible for re-election for a further period of two years.

The Council desires to tender its thanks to all those who have contributed to the success of the Institute during the past year, and in particular to Mr. P. A. Russell, B.Sc., chairman of the Technical Council, Mr. S. H. Russell, chairman of the Education Committee, Mr. D. H. Wood, chairman of the Charter and Bye-Laws Committee, and Mr. C. W. Bigg, who was appointed hon. treasurer in October last in succession to Mr. S. H. Russell.

Officers

At the forthcoming annual general meeting the Council will nominate the following as officers for the year 1945-46. The nomination for junior vice-president is made on the recommendation of the past-presidents' committee:—As president, Mr. J. W. Gardom; as senior vice-president, Mr. D. H. Wood; as junior vice-president, Mr. P. H. Wilson, O.B.E.

Annual General Meeting, 1944

The 1944 annual general meeting was held at the Midland Hotel, Manchester, on Saturday morning, June 10, and was followed by the Edward Williams Lecture, delivered by Sir Charles Darwin. A session for the presentation and discussion of Papers was held on the preceding evening, and three further technical sessions were held concurrently on the Saturday afternoon.

Staff

The secretary, Mr. T. Makemson, continues to be engaged at the Iron and Steel Control, Ministry of Supply, but is able to maintain close contact with the Institute's work.

The report is signed by Mr. J. W. Gardom, president, and Mr. John Bolton, acting secretary.

THIRTEENTH ANNUAL REPORT OF THE TECHNICAL COUNCIL

Five meetings of the Technical Council and 15 meetings of various sub-committees have been held during the past year. Additionally, a number of technical inquiries from members have been dealt with. The reorganisation of the Technical Council mentioned in the last annual report was completed during the year and new sub-committees appointed to deal with new work or to complete work in hand of the 1943-44 Technical Council. A full report of the activities of the sub-committees during the year was made available to branches in February to enable branch representatives on the Technical Council to present details to the various branch annual meetings.

Technical Council Students Fund

It was announced at the 1944 annual meeting that the Council had accepted from the president, Mr. J. W. Gardom, a donation of £250, to form the Technical Council Students Fund, through which a selected number of young foundrymen would be enabled to attend meetings of the technical sub-committees. Details of the scheme were announced to members in a circular issued in September, 1944, as a result of which 79 applications were received. It was possible, in the first place, only to grant five places, and these were awarded to the following:—Mr. R. Gould, Pontypridd; Mr. F. Hallas, Huddersfield; Mr. W. Jones, Bradford; Mr. H. P. Millar, Kilmarnock; and Mr. W. D. G. Venn, Exeter. The selection of candidates and the administration of the fund are in the hands of a specially appointed committee and it is pleasing to be able to report that this scheme has been most successful during the current year.

The Sub-committees

The activities of 10 of the sub-committees are summarised in the following paragraphs. In addition the Mechanical Development and Melting Furnaces Sub-committees were retained in being during the early part of the year in order to deal with the discussions on their reports which were submitted to the 1944 annual meeting. Similarly the Sub-committee on Atlas of Defects in Non-ferrous Castings was retained in order to prepare a final report following the discussion of its draft atlas which was presented at branch meetings during the 1943-44 session.

Grey-iron Test-bar Sub-committee.—This sub-committee is under the chairmanship of Dr. A. B. Everest and was appointed to formulate recommended methods of producing separately cast grey-iron test-bars as specified in B.S.S. 321 and 786. The work is proceeding satisfactorily and the sub-committee is presenting tentative recommendations for discussion at the annual meeting, 1945.

Malleable Cast-iron Specification Sub-committee.—The sub-committee was appointed under Mr. A. E. Peace's chairmanship to bring to a conclusion work which had previously been in the hands of the Malleable Cast-iron Sub-committee concerning the revision of blackheart and whiteheart specifications, B.S.S. 309 and 310. Apart from two meetings which the sub-committee has held there have also been two joint meetings with the Malleable Cast-iron Sub-committee of the British Cast Iron Research Association, who are also interested in these proposals, and it is confidently expected that agreed recommendations for the revision of the specifications will shortly be laid before British Standards Institution.

Sub-committee on Control Tests for Cast Iron.—The sub-committee's terms of reference are: "To investigate and make recommendations on forms of test applicable to molten grey cast iron before pouring into the mould." It commenced its activities in October, 1944, and although it is expected that its report,

Institute of British Foundrymen

when issued, will mainly deal with various forms of visual tests, *e.g.*, the wedge test, the sub-committee does not propose to confine its review to these methods and the possibility of carrying out certain analytical and physical tests between tapping a furnace and pouring a mould is under examination. The sub-committee is under the chairmanship of Mr. Blakiston, but during his temporary absence abroad, Mr. J. H. D. Hobson has been appointed acting chairman.

Sub-committee on Effect of Mould Materials on the Soundness of Iron Castings.—The sub-committee was appointed to explore and report to the Technical Council upon the possibility of carrying out an investigation on the effect of mould materials on the soundness of grey and malleable iron castings. It was considered to be impracticable to initiate any investigational work into so broad a subject without making a preliminary survey of the field and this sub-committee is at present undertaking a considerable survey of published literature. When their report is presented to the Technical Council it is possible that recommended sections of this subject will be further investigated.

Sub-committee on Atlas of Defects in Castings.—The need of an atlas to assist founders and engineers correctly to identify castings defects has been apparent to the Technical Council for some considerable time and, in fact, several of the sub-committees under the original constitution collected data with this object in view. Members will be most familiar with the work of the Non-ferrous Sub-committee, which presented a draft atlas of defects in non-ferrous castings for discussion at numerous branch meetings during 1943-44 session. The present sub-committee was appointed under Mr. F. Hudson's chairmanship in order to correlate previous work which had been done and to make a final selection of illustrations for publication. So far approximately 30 photographs have been selected and it is the intention that these should be made available to members in loose-leaf form as soon as possible. Each defect will be illustrated on a separate sheet, which will also contain brief notes identifying the defects and giving their probable cause and suggested remedy. The sub-committee proposes to prepare further examples for publication and arrangements will be made for these subsequent instalments to be made available from time to time.

Basic Cupolas Sub-committee.—The work initiated by the Melting Furnaces Sub-committee, which presented a first report on basic lined cupolas to the 1944 annual meeting, is being continued by this sub-committee, under the chairmanship of Mr. L. W. Bolton, and with the following terms of reference:—(1) To examine the use of basic refractories for cupola linings; (2) to examine the effect of cupola melting in a basic lining on the composition and properties of the metal, and (3) to examine the possibilities of obtaining desulphurisation and dephosphorisation. It will be apparent that considerable investigational work will have to be done, but the sub-committee hopes to have a second report available for publication within 18 months.

Gases in Cast Iron Sub-committee.—The nature, mode of occurrence and amount of gases and compounds in which gases form a part in metals as well as the effect of those gases and compounds on the metal in the molten and solid states have been and continue to be subjects of research in several of the most fully equipped metallurgical laboratories throughout the country. It was noted, however, that little of this work referred directly to cast iron and the present sub-committee was appointed, with Dr. J. E. Hurst in chairman, to report to the Technical Council upon the present state of knowledge and the possibility of further work being done with reference to cast iron. A comprehensive report was submitted by the sub-committee to the Technical Council on March 7 and from this it became apparent to the Technical Council that the subject is of very great importance, but at the same time it was appreciated that further research demands facilities which are beyond the scope of the Technical Council. For this reason, and also on account of similar research which is being undertaken under the ægis of other authorities, it was resolved to reappoint the sub-committee, with wider terms of reference, to enable it to examine the possibilities of co-operative action in any further work on this subject. It was anticipated that the sub-committee will make a further report to the Technical Council in the near future.

Sub-committee on Dimensional Tolerances for Castings.—The purpose of the sub-committee is to prepare an authoritative statement which will be a guide to both founders and purchasers as to tolerances which may be regarded as reasonable and allowable in all types of castings and to include reference to jigging. Mr. C. H. Kain has been appointed chairman and the sub-committee is fully representative of all aspects of founding. Two meetings have so far been held and whilst consideration is being confined for the time being to sand castings it is intended at a later date to include reference to permanent or semi-permanent moulded castings.

Sub-committee on Testing of Oil Sand.—The sub-committee, whose membership is the same as the Sands Sub-committee under the original constitution of the Technical Council and with Mr. A. Tipper as chairman, was appointed to prepare a recommended procedure for the testing of oil sand. Through this sub-committee the Institute is keeping in touch with the Joint Committee on Sand Testing, on which it is represented together with the Iron and Steel Institute, the British Cast Iron Research Association and the British Non-Ferrous Metals Research Association.

In addition to the foregoing sub-committees a special one was appointed during the year to deal with an inquiry received from the Inspectorate of Fighting Vehicles, Ministry of Supply, regarding the inspection and testing of all types of ferrous castings. The sub-committee has now completed its negotiations with I.F.V. and Inspection Instruction No. 27 is now in operation. During the negotiations the I.F.V. accepted

(*Continued on facing page, column* 1.)

NOTES FROM THE BRANCHES

SOUTH AFRICAN BRANCH.—In April, members visited the works of the Consolidated Rand Brick, Pottery & Lime Company, Limited, where in modern plant they saw the manufacture of various types of refractory bricks. Brief visits were also paid to the salt glazed pipe and pottery departments. After touring the factory the party was received and entertained at the home of the proprietor, Mr. Douglas Cullinan. Mr. Ward, in thanking the management for their courtesies, said he believed the works was the largest producer of refractories—as a single unit—in the British Commonwealth and in the Southern Hemisphere. After Mr. Tonge had supported, Mr. Cullinan replied and paid tribute to his brother, Mr. R. V. Cullinan, who had been largely responsible for building up the firm, and to the staff who had had to cope with the unprecedented demands caused by the war.

CAPE TOWN SECTION.—In a lecture given by Mr. E. L. S. Sylvester, he referred at some length to the history of the development of the marine propeller. He attributed the first propeller to Francis Smith (1833), and next of importance to the French; this was installed on the "Napoleon" in 1843. He devoted the later part of his lecture to the obtaining of information from a damaged propeller for the purpose of making a replace casting.

VICTOR KENT (TRANSVAAL) (PTY.), LIMITED, of P.O. Box 1564, Johannesburg, who have agencies throughout the Dominion of South Africa, now represent British Moulding Machine Company, Limited; Midland Monolithic Furnace Lining Company, Limited; and Foundry Services, Limited.

ANNUAL REPORT OF THE INSTITUTE OF BRITISH FOUNDRYMEN

(*Continued from previous page.*)

most of the proposals put forward by the Institute. The sub-committee has now been dissolved, but, if any member experiences any difficulties in the operation of this inspection instruction, the Institute is prepared to advise him, and, if necessary, reopen the matter with I.F.V.

Reference has previously been made to the Joint Committee on Sand Testing. This opportunity is taken to report that the final draft of the Joint Committee's report has now been approved and arrangements are being made for its publication. The Council of the Institute has already agreed to make copies available to all members gratis. The report will describe methods and recommended procedures for the routine testing of all types of prepared moulding and core sand, including the groups of naturally bonded sand, synthetic sand and core sand containing organic binders with or without clay bonded sand.

The report is signed by Mr. P. A. Russell, chairman of the Technical Council.

IRON AND STEEL INSTITUTE

The annual general meeting of the Iron and Steel Institute (postponed from May) will now be held at the Institution of Civil Engineers, Great George Street, London, S.W.1, on July 11 and 12, at 10.30 a.m. on the first day. The Institute of British Foundrymen has been invited to take part. There will be a luncheon for members at the Connaught Rooms, Great Queen Street, London, W.C.2, on July 12, 1945, at 1 p.m.

PROGRAMME

JULY 11, MORNING SESSION (10.30 to 12.45).—Official business; presentation of the Bessemer Gold Medal to Mr. Harold Wright (Dorman, Long & Company, Limited, Middlesbrough); presentation of the Williams Prize to Mr. G. D. Elliot (United Steel Companies, Limited, Appleby-Frodingham).

The following Papers will be presented and discussed:—(1) "The Application of Radiography to the Improvement of Foundry Technique," by R. Jackson (Paper No. 13/1945 of the Steel Castings Research Committee), and (2) "First Report of the Foundry Practice Sub-committee" (Paper No. 12/1945 of the Steel Castings Research Committee). The discussion will be continued during the afternoon session if necessary.

JULY 11, AFTERNOON SESSION (2.30 TO 5.30).—The following Papers will be presented and discussed:—(1) "The Influence of Centrifugal Casting upon the Structure and Properties of Steel," by L. Northcott and D. McLean; (2) "Examination of Two Ingots of Free-cutting Steel, One containing Lead and the other Lead-free, by C. S. Graham. (Paper No. 31/1945 of the Committee on the Heterogeneity of Steel Ingots); (3) "The Microscopical Examination of Samples of Lead-bearing and Lead-free Steels and Ingot Irons," by T. H. Schofield (Paper No. 32/1945 of the Committee on the Heterogeneity of Steel Ingots); and (4) "Mode of Occurrence of Lead in Lead-bearing Steels and the Mechanism of the Exudation Test," by W. E. Bardgett and R. E. Lismer (Paper No. 33/1945 of the Committee on the Heterogeneity of Steel Ingots). The last three Papers will be discussed jointly.

JULY 12, MORNING SESSION (9.45 TO 12 NOON).—The following Papers will be presented and discussed:—(1) "The Constitution of Basic Steel Furnace Slags," by J. R. Rait and H. J. Goldschmidt; (2) "The Phosphorus Reaction in Basic Open-hearth Practice," by Y. K. Zea; and (3) "A Study of the Basic Open-hearth Process, with Particular Reference to Slag Constitution," by A. H. Jay. The above three Papers will be discussed jointly.

JULY 12, 1 P.M. FOR 1.15 P.M.—Luncheon at the Connaught Rooms.

ALONG THE SOUTH COAST of Natal, the high humidity and salt-impregnated atmosphere cause rapid corrosion of steel nuts and bolts. These often require to be replaced annually, and being in short supply, the Umgeni Iron Works (Pty.), Limited, of Durban, have successfully replaced them by Meehanite of corrosion-resistance quality, and have now sizeable orders in hand for future requirements.

RELAXATION IN EXPORT LICENSING CONTROL

IRON AND STEEL PRODUCTS AFFECTED

Under the Export of Goods (Control) (No. 4) Order, 1945, the export licensing regulations are relaxed in respect to a long list of goods. Some of the items now removed from the Export Control List have moved into easier supply as a result of the changed military situation. During the transitional period, various shortages are likely to remain. The overriding claims of the war against Japan and the need to send essential supplies to the Empire and other countries (including liberated territories) for which this country has a responsibility for certain supplies will, therefore, mean that many of the goods now removed from export licensing control will not be freely available for export for some time to come. The significance of the removal of any of these latter items from the Export Licensing List is that any necessary control on the exportation of these goods can be achieved without the use of detailed and formal export licences at the ports. This is possible in a number of ways ranging from statutory control over manufacture and supply to informal arrangements with the industry concerned.

The main effect of the new Order is to cancel all previous Export Control Orders and to set out the export licensing position as at June 11, 1945. It reduces substantially the list of goods requiring export licences and removes all the remaining countries from the list of territories to which the export of all goods is controlled by export licensing, so that in future only goods appearing in the First Schedule to the Order will require export licences.

It is not possible to summarise briefly the relaxations in export licensing control made by this Order, but among the more important goods affected are many types of machinery, various iron and steel products, certain metal goods, asbestos manufactures, abrasive manufactures and certain chemicals. Exporters should bear in mind that in some cases parts of items only have been deleted from the list of controlled goods and they are strongly advised to consult the Order itself to ascertain the exact position as regards goods with which they are concerned.

Exporters will, of course, appreciate that any relaxation refers to export licensing requirements under the Export of Goods (Control) (No. 4) Order, 1945, only and does not in any way affect any other regulations which may be in force governing the manufacture, acquisition, disposal, etc., of goods, including manufacture, acquisition, disposal, etc., for export. As regards steel products, sanction to export will be granted by the British Iron and Steel Corporation for heavy steel, the Rolled and Re-rolled Products Association in the case of light steel, and the Sheet Association in respect to sheets. It may be noted that colliery arches and pit props and wire netting, wire fencing, wire mesh, wire cloth and wire gauze may, under Article 4 (i) of the Order, be exported to the British Colonial destinations listed in Part II of the Second Schedule without licence.

Among products deleted from the list of goods controlled under export licensing regulations are the following:—

Iron and steel angles, bars and rods, blooms, expanded metal, girders, hoop and strip, ingots, shot, tubes, wire, etc.

Non-ferrous metals, etc.: Arsenic, beryllium, chromium, cobalt, iridium, molybdenum, osmiridium, osmium, palladium, rhodium, ruthenium, tantalum, titanium, tungsten, vanadium.

Ores, etc.: Aluminium, bauxite, cryolite, iridium, iron, iron pyrites, lead, magnesium, molybdenum, nickel, osmiridium, osmium, radium, tantalum, titanium, tungsten, uranium, vanadium, zinc.

Ferro-alloys, etc.: Silicon, cemented carbide metal.

Manufactures of iron or steel: Cotter, etc., pins, die-casting dies, scaffolding, tubes, ribs, etc.

Manufactures of non-ferrous metal: Cocks, taps, etc.

Manufactures of non-precious metal: Bolts, furniture parts, etc. (as listed), hand-operated machines, etc., hasps and hinges, locks, rivets, screws for wood, etc., staples.

In addition, many items of machinery are removed from the list.

The Order is published as S.R. & O. 576, and is obtainable from the Stationery Office or through booksellers, price 6d.

LICENSING OF MACHINERY AND PLANT

FURTHER SIMPLIFICATION OF CONTROL

Until now most of the machinery and plant controlled by machinery licensing for the home market has been licensable for the export markets under the Export Licensing Orders. In order to simplify the position, a consolidated Order (the Machinery, Plant and Appliances (Consolidation) Order, 1945) has been made with effect from June 11, which, together with certain changes effected on the same date by a new Export Licensing Order (see above), brings the great bulk of machinery and plant in the controlled classes under a single licensing procedure, whether they are supplied for home or export. Most of the classes of controlled goods are now covered only by machinery licensing. In the few instances in which export licences are still needed, no further machinery licence will be required. The introduction of this change will facilitate the progressive extension of the bulk licensing system to cover supplies for export as well as for the home trade, and it is hoped that it will constitute a flexible control which will be as little irksome to traders as possible. It will also afford to the Board of Trade and to the machinery manufacturers the fullest opportunity to discuss the fair division of their production between the home market with its need for re-equipment and the export markets anxious to secure British plant and machinery.

MEMBERSHIP OF THE Institute of Welding has grown from less than 2,000 in 1942 to 4,506 in 1945.

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GOVERNMENT FACTORY SPACE

The Board of Trade has allocated 34 Government factories for civilian production, making a total to date of 53. The total of the factory space now allocated exceeds 15,600,000 sq. ft. There is about three times this amount of factory space still to be allocated in bulk, as well as a large number of smaller premises. All the factories are leased, and it is the Government's policy not to sell them.

Among the new allocations are the following:—Sunderland (Pallion), 50,000 sq. ft., Charles Twigg & Company, Limited, gas fittings, metal smallwares, perambulators; Lutterworth, 70,000 sq. ft., Alfred Herbert, Limited, machine tools; Lydney (Part), 125,000 sq. ft., Western Motor Holdings, Limited, passenger service vehicle bodies; Aberdare, 119,000 sq. ft., Collaro, Limited, domestic hollow-ware, etc.; Neath, 50,000 sq. ft., Midland Metal Spinning Company, Limited, aluminium hollow-ware; Blackwood, 50,000 sq. ft., South Wales Switchgear, Limited, electric equipment; Castle Bromwich, 1,800,000 sq. ft., Morris Motors, Limited, motor-cars; Ludlow, 50,000 sq. ft., Richard Lloyd, Limited, cutting tools; Shirley, Birmingham, 110,000 sq. ft., B.S.A. Guns, Limited, rifles; Rednal, Birmingham, 965,000 sq. ft., Austin Motor Company, Limited, motor-cars; Fletchamstead, Coventry, 367,000 sq. ft., Fisher & Ludlow, Limited, pressed steel fittings; Workington, 470,000 sq. ft., United Steel Companies, Limited, ingot mould foundry and general engineering; Radcliffe, 295,000 sq. ft., Mather & Platt, Limited, textile machinery and food machinery; Eccles, Manchester, 1,320,000 sq. ft., Platt Bros. & Company, Limited, textile machinery; Blackpool, 1,300,000 sq. ft., and Chester, 860,000 sq. ft., Vickers-Armstrongs, Limited, temporary houses; Broxburn, 50,000 sq. ft., Range Boilers, Limited, copper boilers and storage tanks; Broxburn, 50,000 sq. ft., H. Webb & Company (Engineers), Limited, ancillary water heaters and wash boilers; Castlereagh, 50,000 sq. ft., P. R. Mallory & Company, Limited, batteries, and Castlereagh, B, 50,000 sq. ft., M.C.L. & Repetition, Limited, light engineering and repetition work.

QUALITY CONTROL METHODS

A course of elementary instruction in quality control methods is to be given in London from July 16-20. The course will consist of lectures, practical work, and a demonstration at a factory; it is intended for designers, draughtsmen, engineers and inspectors who are likely to make use of the methods in their work and will be suited to those with mathematics to at least national certificate standard. Those who complete it should then be able to instal quality control in their own factories, and will have the foundations of a knowledge of statistical technique necessary in sound development work. The methods are applicable to a wide variety of production processes.

Details can be obtained from the Ministry of Supply, Advisory Service on Quality Control, Berkeley Court, London, N.W.1.

OBITUARY

MR. PERCY GEORGE ALLDAY, governing director of P. G. Allday & Company, Limited, brassfounders, of Birmingham, has died at the age of 78.

MR. MORRIS HUDSON, chief Midland representative of the United Steel Companies, Limited, died recently at his home in Birmingham. He was 75.

MR. HENRY BULLOCK, former secretary of the Darlington Forge, Limited, who retired 15 years ago, has died at his home in Milbank Road, Darlington.

MR. H. A. EASTWOOD, a director of the Farnley Iron Company (Fireclay Works), Limited, and the Leeds Fireclay Company, Limited, died recently at Fleet, Hants, aged 75.

MR. FRANCIS JOHN NEVILLE, of Rushall, Walsall, has died at the age of 66. For many years he was a partner in the firm of T. C. Neville & Sons, engineers and ironfounders.

MR. W. H. GRIEVE, chairman and managing director of Lightalloys, Limited, and a director of the Manganese Bronze & Brass Company, Limited, died recently. He was 65.

MR. R. J. BARTHOLOMEW, an associate member of the East Anglian section of the Institute of British Foundrymen, died recently as a result of an explosion caused by the bursting of a blow lamp in an Ipswich foundry.

MR. D. GRIER, general manager of John Readhead & Sons, Limited, shipbuilders, South Shields, has died suddenly. He was well known in shipbuilding circles and had served all his working life with the firm, which he joined in 1903.

MR. A. E. RIDLEY, chief engineer of Llanelly Associated Tinplate Companies, Limited, Old Castle Works, Llanelly, has died, aged 71. He was well-known in South Wales engineering circles, having acted as consulting engineer to many works. Some years ago Mr. Ridley invented a purifying plant for crude oil.

MR. AUSTIN CROOKES, who was connected with the steel trade in Sheffield all his working life, has died at his home at Ditchingham, aged 78. Mr. Crookes was senior director of the Wincobank Rolling Mills Company, Limited, Sheffield, founded by his father. He was also formerly a member of the firm of Crookes Roberts & Company, later taken over by Alfred Beckett & Company, Limited.

MR. DAVID OWEN EVANS, Liberal M.P. for Cardiganshire, who died last week, spent the early part of his working life in the Civil Service as a barrister. Later he became connected with the Mond Nickel Company, Limited, and was appointed chief administrative director, vice-president of the International Nickel Company of Canada, Limited, a delegate-director of the Mond Nickel Company, Limited, and chairman of the Council of the Copper Development Association. Only a few days before his death Mr. Evans had been awarded a knighthood in the honours conferred on the occasion of the Dissolution of Parliament.

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NEWS IN BRIEF

THE U.S. GENERAL ELECTRIC COMPANY plans to build an $8,000,000 research laboratory near Schenectady, N.Y.

THE GOVERNMENT has decided, with regret, that it would be premature to hold a British Industries Fair in 1945. Plans are proceeding for the holding of a Fair in 1947, when emphasis on exports will be made the dominant feature.

THE ARGENTINE GOVERNMENT have taken possession of the Thyssen Lametal works, a German-owned manufacturing company, and of two affiliated firms. The firms are accused of violating measures designed to prevent trading with the enemy.

SOME 650 WORKERS, including 500 women, will be affected by a Ministry of Supply decision to close a foundry at Coltness, Newmains, Lanarkshire. The foundry, which opened in 1942, produced tank parts and bomb bodies, and there are no immediate prospects of its switchover to peace production.

SAMUEL PLATT, LIMITED, engineers and ironfounders, of Kings Hill Foundry, Wednesbury, announce that the company is being reconstructed for private reasons by means of a members' voluntary winding-up. There will be no change of name or ownership, and the business will be carried on with the same management and staff as at present.

A BILL HAS RECENTLY been passed by the Australian Commonwealth Government ratifying their agreement with the Tasmanian Government for the establishment of an aluminium industry in Tasmania at an estimated cost of £A.3,000,000, to be shared equally by both governments. It is proposed to produce 10,000 tons of ingot aluminium annually.

THE PARTNERSHIP between Joseph Foster and William Foster, carrying on business as textile machine makers at Hamer Machine Works, Red Lane, Rochdale, under the style of W. Hurst & Company, has been dissolved by mutual consent. Debts will be received and paid by Joseph Foster, who will continue to carry on the business under the same style.

NEWALL ENGINEERING, LIMITED, has entered into a conditional agreement for the purchase of the whole of the share capital of Keighley Grinders (Machine Tools), Limited, consisting of 80,000 "A" shares of 5s. and 20,000 "B" shares of £1. The purchase consideration is the issue of 40,000 £1 preferred and 100,000 2s. ordinary fully-paid shares.

THE COMPANIES REGISTRATION OFFICE give notice that the names of the undermentioned companies have been struck off the register, and such companies are dissolved:—Bastwick Metals, Limited; Berrisford Engineering Company, Limited; Britannia Lathe & Oil Engine Company, Limited; Conway (Engineers), Limited; Tyler Bros. (Engineers), Limited.

OF CONSIDERABLE IMPORTANCE to the West of Scotland is the fact that it is now in direct line for an excellent supply of aluminium. Rolling mills at Falkirk are the most modern in the country, perhaps the world. One firm has recently started on the production of aluminium domestic utensils and gadgets, for which there is a huge market. Another, near Glasgow, is producing parts for prefabricated houses.

OWING TO THE PRESSURE on Parliamentary time, it has been decided not to proceed further, before the dissolution of Parliament, with the matter of the withdrawal of the £500 exemption limit in connection with the Purchase Tax. The Purchase Tax (Suspension of Registration Limit) Order, 1945, which required traders affected to apply for registration by July next, will therefore be allowed to lapse; and no action will be taken on applications that have been received under that Order.

SPEAKING AT BEDFORD recently, Lord Samuel criticised Labour's plan for the nationalisation of the iron and steel industry. Competition in the world's markets was going to be keener than ever before, and nowhere would it be more intense than between Britain and the United States, he said. The Americans, under private enterprise, had shown great inventiveness and energy, and he believed they would sweep us out of the world's markets if we put iron and steel under the management of the Government.

TRIBUNAL'S AWARD ON ENGINEERING WAGES CLAIM

The National Arbitration Tribunal have issued an award rejecting a claim by certain workers (members of the A.E.U.) employed by Ideal Boilers & Radiators, Limited, Hull, that the firm should put into operation conditions of employment as operated by the majority of engineering firms in the Hull district.

In the course of the hearing it was pointed out that the workers concerned, who are largely employed on machine work in the foundry and allied departments, were recruited from unskilled workers; their rates and conditions had been agreed between the firm and the National Union of General and Municipal Workers, to which many of such workers belonged. Other points submitted to the Tribunal related to the conditions of employment provided under the agreement made between the Hull Iron Trades Employers' Association (of which the firm are not members) and the Amalgamated Engineering Union and the observance by the firm of such conditions in respect of the workers employed in their fitters', pattern and tool departments; and to the inability of the firm to negotiate with two unions in respect of men employed on similar work in the same shop.

The Tribunal found that the claim had not been established.

MR. JOHN R. WINSKILL has resigned the chairmanship of Walter Spencer & Company, Limited, Crescent Steelworks, Sheffield, but will continue in the position of managing director. He will be succeeded in the chair by MR. E. RANSOM HARRISON, who is also chairman of the Rover Company.

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Raw Material Markets

IRON AND STEEL

Supplies of iron ore, coke and limestone are being provided in tonnages adequate for the needs of the blast furnaces in operation and pig-iron production is being kept on an even keel. Output, however, no more than suffices for the current needs of the steelworks and foundries and any expansion of requirements from either direction would bring into the immediate foreground the need for increased blast-furnace production. Obviously, the execution of the housing programme will call for a sharp amelioration of activity in the light foundries, which can only be sustained upon a more generous supply of high-phosphorus iron. The needs of the general engineering foundries can be satisfied with less difficulty.

At some of the re-rolling mills, particularly those engaged on light sections and small bars, there has been a definite shrinkage of late in the volume of work in hand, but there is still a fairly active demand for billets, both primes and defectives. Far more insistent, however, is the demand for sheet bars, wherewith to maintain the record outputs of light sheets which are on order. The onus of meeting these requirements now rests exclusively on the shoulders of British steelmakers, and they are making a satisfactory response.

From builders of rolling stock, boiler makers and kindred trades, a steady call for steel plates is maintained. But the heaviest users are the shipyards, whose requirements have not developed that resilience which might have been anticipated in view of the assurances of full employment for the shipbuilding industry. A few export orders for steel plates have also been licensed, and in this direction further expansion may be anticipated.

NON-FERROUS METALS

The increase in the prices of lead and zinc has made no difference to the demand, which is gradually increasing as more factories turn over to the manufacture of peacetime goods. There are no outstanding features at the moment. Copper, lead, zinc and aluminium are all in good supply, but do not move away very quickly because of the labour and other difficulties manufacturers are confronted with when putting post-war plans into operation. There is a fair supply of tin, but economy of use continues to be imperative.

HENRY SIMON, LIMITED, of Stockport, and E. R. & F. Turner, Limited, of Ipswich, who have entered into an agreement for the formation of a company to foster export trade in British flour-milling machinery, to be known as Henry Simon & Turner, Limited, are represented in South Africa by Macdonald, Forman & Company, Limited.

PERSONAL

MR. N. CLARKE, B.Sc., A.Inst.P., has been appointed assistant secretary of the Institute of Physics.

MR. M. ARNET ROBINSON has been elected to the board of Grayson, Rollo & Clover Docks, Limited.

SIR PEIRSON FRANK, chief engineer of the London County Council, has been elected president of the Institution of Civil Engineers for 1945-46.

MR. G. BURROWS, manager of the Crookhall foundry of the Consett Iron Company, Limited, has been appointed president of the Newcastle-upon-Tyne branch of the Institute of British Foundrymen.

MR. B. ALLEN has been appointed technical representative of Hadfields, Limited, Sheffield, for all their colliery equipment throughout the country Mr. Allen will operate from the company's East Hecla Works, Sheffield.

MR. D. W. PLAISTOWE, of the Glacier Metal Company, Limited, who has been managing the company's Scottish factories, has now taken up his new appointment as commercial manager at the head office at Wembley.

MR. J. S. HOLLINGS will retire from the managing directorship of Guest Keen Baldwins Iron & Steel Company, Limited, on June 30. MR. E. JULIAN PODE, at present assistant managing director, has been appointed managing director from July 1 next.

MR. H. J. KELLEY, who has been vice-president and general manager at Sydney, Cape Breton, of the Dominion Steel & Coal Corporation, Limited, for 21 years, has retired from active duty. Mr. Kelley was re-elected to the board of directors, and will act as consultant.

SIR GEORGE E. BAILEY, a vice-chairman of Associated Electrical Industries, Limited, has been appointed managing director. Sir George is chairman of the Metropolitan-Vickers Electrical Company, Limited, and a director of the British Thomson-Houston Company, Limited.

MR. HERBERT REEMAN, district manager for Babcock & Wilcox, Limited, for South Wales and South-West England, is shortly leaving this country to take up temporarily a senior executive position in his company's Australian organisation. He is likely to be away for about 12 months.

MR. AND MRS. JOHN A. RICHARDS celebrated their diamond wedding on May 20, and they received a telegram of congratulation from the King and Queen. For many years until his retirement Mr. Richards was managing director of the Clan Foundry Company, Limited, Belper, Derby, which he built.

Wills

PATE, G., late general manager of the Carron Company	£35,977
HIRST, J. A., chairman of Electrical Switchgear & Associated Manufacturers, Limited	£76,627
RECKITT, SIR PHILIP BEALBY, director of Priestman Bros., Limited, Holderness Foundry, Hull, and other concerns	£680,790